

**Notice of Allowability**

Application No.

10/044,346

Applicant(s)

MCLEAN ET AL.

Examiner

Alicia M. Harrington

Art Unit

2873

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to RCE and IDS filed on 2/23/05 and 2/4/05.
2. ☒ The allowed claim(s) is/are 1-5, 8-11, 13-15, 19-21, 23, 25, 34, 35, 37-40 and 43-45.
3. ☒ The drawings filed on 11 January 2002 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
  1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

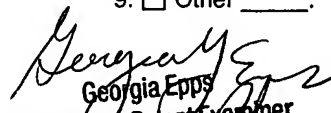
\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date 0403,1104,0205
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_.

  
Georgia Epps  
Supervisory Patent Examiner  
Technology Center 2800

**DETAILED ACTION**

***Information Disclosure Statement***

1. The information disclosure statement filed on 4/4/03 is a combination of the IDS statements filed on 2/3/03, 12/16/02, 4/19/02, 4/22/02, and 3/13/02. Thus, the IDS filed on 4/4/03 was not considered because it is a duplicate IDS.
2. The information disclosure statement filed on 11/3/04 was partially considered. A number of the references were duplicates from previous IDS statements, US 2001/0055451 was printed on the form twice, and some references were not prior art because the filing date did not precede the filing date of this application.
3. The information disclosure statement filed on 2/4/05 was not considered because it is a duplicate of the IDS filed on 11/3/04.
4. The information disclosure statement file don 2/23/05 was considered by the Examiner.
5. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

The application has been amended as follows:

**In the claims :(correcting a typographical error in the Examiner's amendment dated 11/5/04)**

43. (Currently Amended) In a dental curing apparatus comprised of a dental instrument having a main body for supplying electrical power, an extension arm attached at one

end to said dental instrument, and through which electrical power is connectable to an LED light source, an improved optical device assembly connected to an opposite end of the extension arm, the optical device assembly comprising:

a disposable assembly that may be removed and discarded after use on a patient, comprising:

a lens positioned so as to receive light from the LED light source,

said lens having a curved end that focuses the received light into a desired focus of illumination suitable for curing dental compounds within a patient's mouth, and

a transparent shield which fits over and protects the lens, and into which the lens ~~fits~~ fits and is held, with the transparent shield in turn comprising means for removable attachment to the extension arm.

6. The following is an examiner's statement of reasons for allowance: Prior art to Ascher (US 5,017,140) illustrates a disposable opaque shield used to focus radiation through an integrated aperture (lens) in figures 2 and 3. Calderwood (US 6,402,511) illustrates a more common disposable transparent shield. Lastly, Stark et al (US 4,522,594) illustrates an opaque shield with focusing element in the walls (13) that is disposable. However, in claim 1, prior art taken either singularly or in combination in a rejection under 35 USC 102 or 103 would not provide at least means for holding and for protecting the lens comprise a transparent shield having means for removable attachment to the dental instrument so that is can be removed together with the lens and discarded after use. In regards to claim 44, prior art taken either singularly or in

combination in a rejection under 35 USC 102 or 103 would not provide at least a dental curing apparatus with an optical device assembly connected to an opposite end of the extension arm, the optical device assembly comprising a lens having a curved end that focused light from the LED where a rigid, conical shaped disposable transparent shield fits over and protects the lens, and comprises means for removable attachment to the extension arm so that the transparent shield may be remove and discarded after use as claimed. Regarding claims 43 and 45, prior art taken either singularly or in combination in a rejection under 35 USC 102 or 103 would not provide at least a dental curing apparatus comprising a disposable assembly that may be removed or discarded after use on a patient comprising a lens having a curved end that focuses the received light into a desired focus of illumination where a transparent shield which fits over and protects the lens, and into which the lens is held as claimed.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

#### ***Conclusion***


7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alicia M. Harrington whose telephone number is 571 272 2330. The examiner can normally be reached on Monday - Thursday 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Georgia Epps can be reached on 571 272 2328. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AMH

Alicia M Harrington  
Examiner  
Art Unit 2873

  
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